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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/449,679	11/24/1999	KATSUHITO SAKURAI	35.C14042	6571
5514	7590	05/05/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			HANNETT, JAMES M	
			ART UNIT	PAPER NUMBER
			2612	<i>9</i>

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/449,679

Applicant(s)

SAKURAI ET AL.

Examiner

James M Hannett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23,25,27,30,31,33-36,38-41 and 45-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-23,25,27,30,31,33-36 and 38-41 is/are allowed.
- 6) ☒ Claim(s) 45-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 2/26/2004 have been fully considered but they are not persuasive. The examiner disagrees with the applicants arguments that Bailey does not teach the limitation of new claims 45-47.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 1: Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,243,134 Bailey.
- 2: As For Claim 45, Bailey teaches on Column 6, Lines 34-65 and Column 7, Lines 1-36 and depicts in Figure 5 an image pickup apparatus comprising: a plurality of pixels (200), each of which includes a photoelectric conversion portion (PD2) and an amplifying element (M13) which amplifies a photoelectric conversion signal from the photoelectric conversion portion (PD2); a driving circuit which selectively outputs a first photoelectric conversion signal (Sample 1 signal) obtained with a first sensitivity and a second photoelectric conversion signal obtained with a second sensitivity (Sample 2 signal) from the amplifying element (M13), wherein the first photoelectric conversion signal of the first sensitivity and the second photoelectric conversion signal of the second sensitivity are based on photoelectric conversion performed at a same timing; Column 6, Lines 52-57.

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However, Bailey does not teach in one of the preferred embodiments the use of a signal processing circuit which forms a single image using the first and second photoelectric conversion signals. Bailey teaches on Column 7, Lines 14-17 that after the image data is collected it is sent to a post processing circuit. Although Bailey does not teach in the detailed description of the invention that the collected image data can be sent to a signal processing circuit which forms a single image using the first and second photoelectric conversion signals. Bailey does state on Column 2, Lines 4-11 that it was commonly know in the art at the time the invention was made to detect the amount of incident light by subtracting the reset voltage from the signal plus noise voltage in order to obtain a signal that is free of noise.

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to form a form a single image using the first and second photoelectric conversion signals by subtracting the reset voltage signal from the signal plus noise signal in the post-processing circuit of Bailey in order to obtain a signal that is free of noise.

3: In regards to Claim 46, Bailey teaches on Column 6, Lines 34-65 and Column 7, Lines 1-36 and depicts in Figure 5 wherein each of the plurality of pixels (200) further includes a holding portion (C2 and C3) for holding the photoelectric conversion signal from the photoelectric conversion portion (PD2) and a transfer switch (M11) for transferring the photoelectric conversion signal from the photoelectric conversion portion (PD2) to the holding portion (C2 and C3), wherein the amplifying element (M13) amplifies a signal from the holding portion, and wherein the driving circuit outputs the first and second photoelectric conversion signals from the amplifying element by changing capacitance of the holding portion. The capacitance is changed by activating switch (M12) to place capacitors C2 and C3 in Parallel. The driving circuit is

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viewed by the examiner as the circuitry that creates the driving signals Sample 1, Sample 2, reset etc.

4: As for Claim 47, Bailey teaches on Column 7, Lines 40-50 the use of a lens for properly channeling the incident light toward the image sensor. Bailey does not specifically state that the lens (504) focuses the light onto the image sensor. However, Official notice is taken that it was well known in the art at the time the invention was made to focus light onto an image sensor in order to capture a properly focused image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the optical system of Bailey properly focus the incident image onto the image sensor in order to capture a properly focused image.

Allowable Subject Matter

5: Claims 1-23, 25, 27, 30, 31, 33-36 and 38-41 are allowed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hannett whose telephone number is 703-305-7880. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett
Examiner
Art Unit 2612

JMH
April 22, 2004


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2500